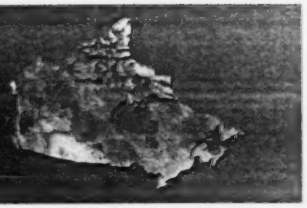


Canadian Natural Gas

›› Monthly Market Update

March 2009

›› Natural Gas Division
Petroleum Resources Branch
Energy Sector

Natural Resources Canada | Ressources naturelles Canada

Canada

Foreword

The *Canadian Natural Gas: Monthly Market Update* is a monthly working paper prepared by the Natural Gas Division of Natural Resources Canada.

Structure and Format of the Report

This six page report provides the most recently available data on natural gas prices and on key fundamentals affecting prices.

To the right is an Executive Summary, which provides a brief, up-to-date overview of natural gas market fundamentals. For those interested in reading ahead, the remainder of the report consists of graphs, with limited text and comments associated with each. The text provides a short description of the natural gas market fundamental, followed by a simple comparative analysis (i.e., year-over-year or month-over-month) of the data contained within the figure.

Beginning in January 2005, this report has been formatted in landscape orientation to be more easily read on a computer screen.

Sources

Various sources are used in developing this report, including Statistics Canada, Canadian Enerdata, Daily Oil Bulletin, the National Energy Board and GLJ Energy Publications. *Data is subject to revision.*

If you have any comments, suggestions or questions please contact Galina Obolenskaia at 995-0422, or by email at gobolens@nrcan.gc.ca

Executive Summary

The chart below depicts percentage changes (given the most recently available month of data) in natural gas prices, heating degree days (weather), natural gas domestic sales and exports, imports, storage, drilling, and natural gas production.

Natural Gas Market Fundamental	Percentage Change	
	Year-to-Year	Month-to-Month
Prices	-38%	-4%
Heating Degree Days	20%	15%
Production	-1%	4%
Sales	-4%	2%
Exports	-16%	-6%
Imports	24%	14%
Storage	6%	-25%
Drilling	-21%	-17%

PRICES: CDN $4.57/GJ in March 2009

HDDs: 845 in January 2009

PRODUCTION: 516 Bcf in January 2009

SALES: 313 Bcf in January 2009

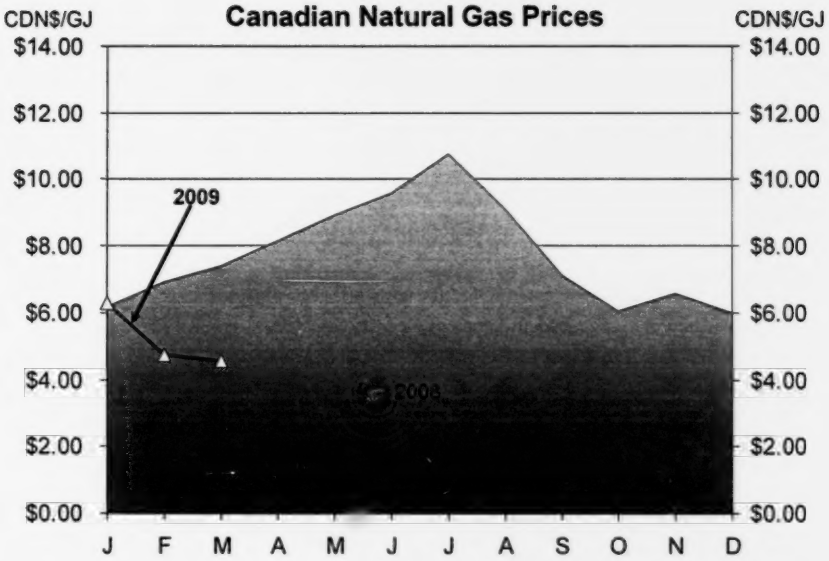
EXPORTS: 306 Bcf in January 2009

IMPORTS: 81 Bcf in January 2009

STORAGE: 234 Bcf in March 2009

DRILLING: 885 in March 2009

Figure 1

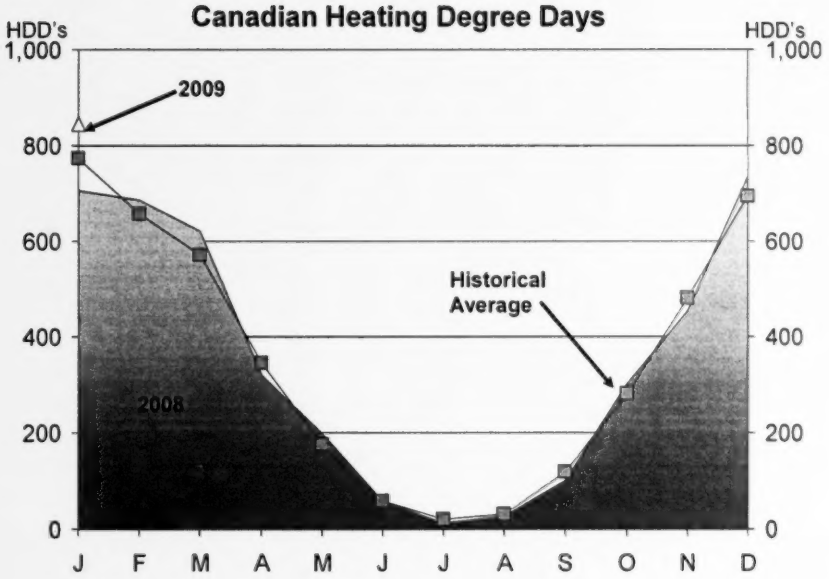


Source: GLJ Energy Publications **Note:** Canadian price is the Alberta price at the AECO hub.

Figure 1 illustrates the price of natural gas at the major Canadian pricing point – the Intra-Alberta market. The price is for gas delivered under a 30-day contract. The Intra-Alberta market is formed by gas delivered to pipelines in Alberta. Gas changes hands via Nova Inventory Transfers (NIT), exchanges at the AECO storage hub, or sales facilitated by the Natural Gas Exchange (NGX). This is a commodity price – a wholesale price in the producing area. Consumer (or "burner tip") prices will also include pipeline transmission and distribution costs, which vary across Canada. Natural gas is commonly measured in gigajoules (GJ) or cubic metres. A gigajoule is an energy unit, which equates to about 27 cubic metres of natural gas.

Canadian natural gas commodity prices were CDN $4.57/GJ in March 2009, 4% lower than the previous month and 38% lower than March 2008.

Figure 2

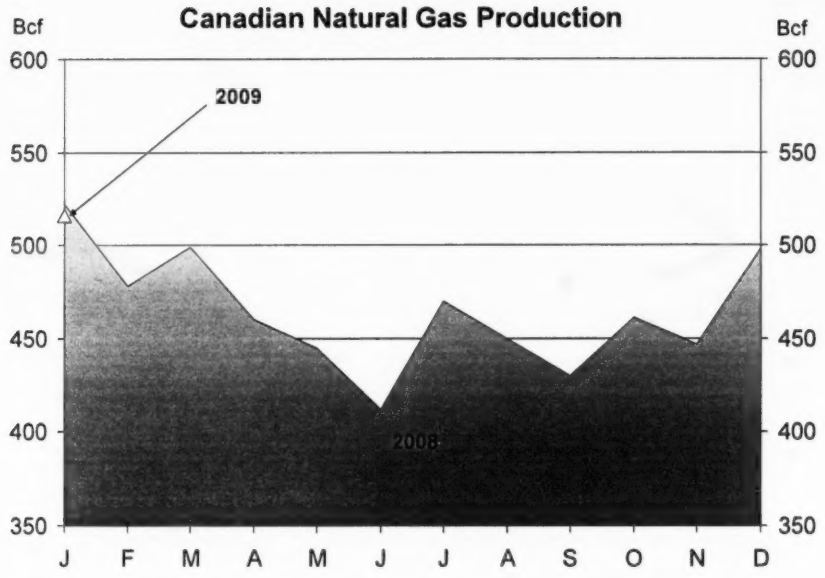


Source: Canadian Gas Association, NRCan

Figure 2 shows Canadian heating degree days (HDDs), which are a measure of how cold it is. The more HDDs in any season, the greater is natural gas demand for space heating. If the winter is unusually cold, demand will respond accordingly and natural gas prices will tend to be stronger. However, if the winter is mild, demand will be weaker, which will tend to moderate prices.

In January 2009, there were 845 HDDs, 20% more than January 2008. Temperatures in January 2009 were 9% colder than normal.

Figure 3

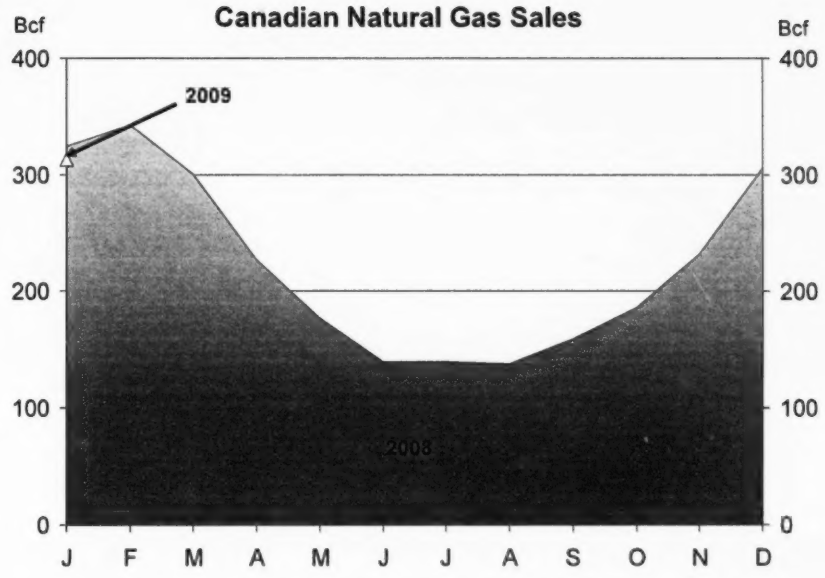


Source: Statistics Canada **Note:** Most recent month is a preliminary figure.

Figure 3 shows marketable natural gas production in Canada. Marketable natural gas is the gas available for consumption after processing and excludes producer or plant uses.

Marketable natural gas production for January 2009 was 516 Bcf, 1% lower than January 2008.

Figure 4



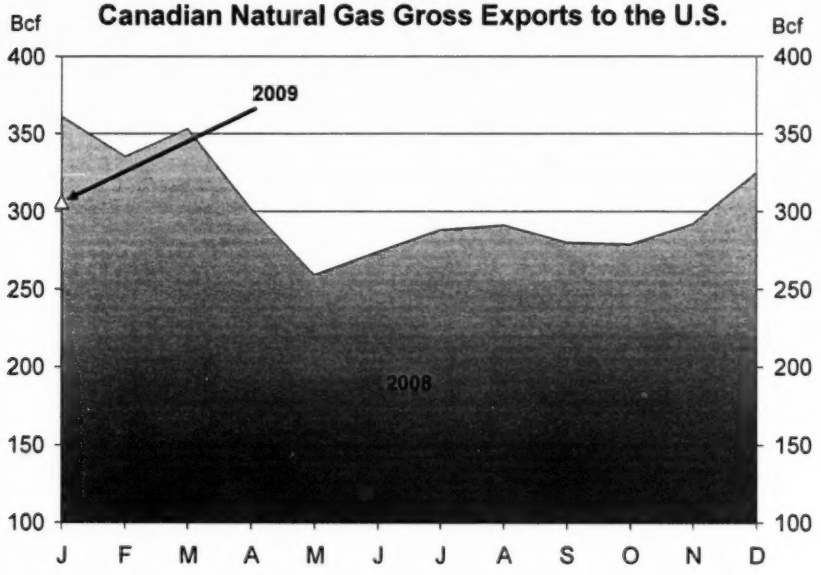
Source: Statistics Canada **Note:** Most recent month is a preliminary figure.

Figure 4 illustrates total Canadian natural gas sales. Sales include all natural gas sold to residential and commercial users (for space and water heating, cooking, etc), industries and electricity generating units in Canada. The totals do not include consumption by the natural gas industry itself (e.g., pipeline compressor fuel).

Natural gas sales to Canadian consumers in January 2009 were 313 Bcf, 4% less than January 2008.

Figure 5

Canadian Natural Gas Gross Exports to the U.S.



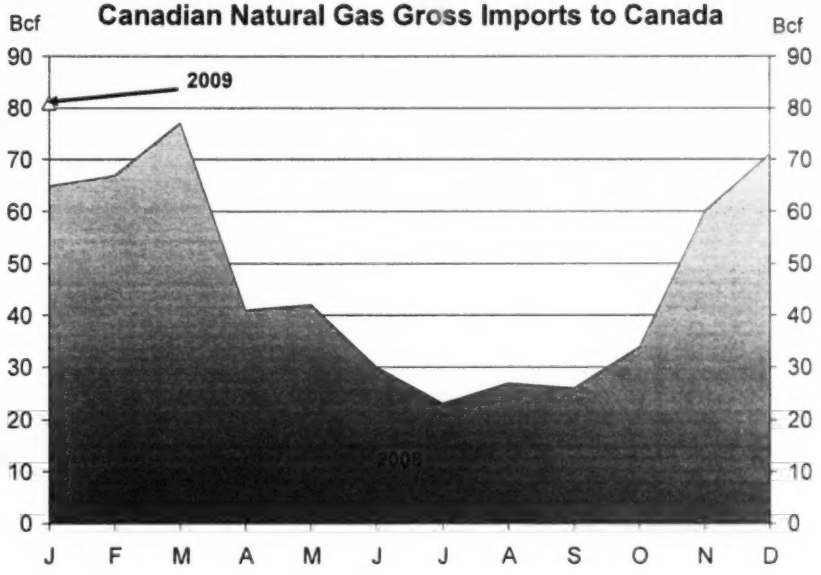
Source: National Energy Board

Figure 5 illustrates natural gas exports to the U.S. Canadian natural gas requirements are met mostly by domestic sources, as Canada produces natural gas in excess of what is required for domestic consumption. In comparison, the U.S. consumes more natural gas than it produces, therefore natural gas imports are required to make up the difference. Typically, Canada exports between 50 and 60 per cent of its gas production.

In January 2009, natural gas exports to the U.S. were 306 Bcf, 16% lower than January 2008.

Figure 6

Canadian Natural Gas Gross Imports to Canada



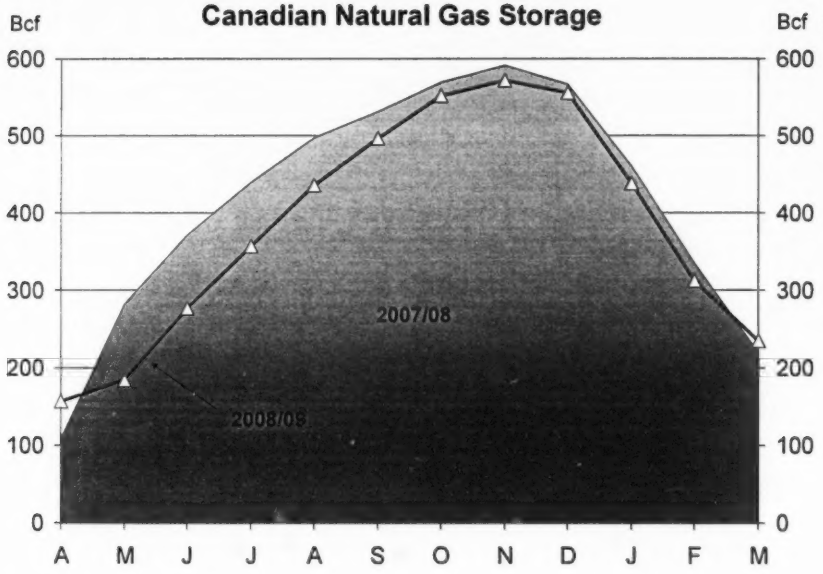
Source: National Energy Board

Figure 6 illustrates natural gas imports to Canada. Most natural gas is imported into Canada through major import points in southern Ontario. Imports into southern Ontario will likely rise in the future, as the province purchases more gas from the rest of North America due to flat production in the Western Canadian Sedimentary Basin. Presently, import volumes are significantly less than export volumes, and Canada remains a net exporter of natural gas.

In January 2009, natural gas imports to Canada were 81 Bcf, 24% higher than January 2008.

Figure 7

Canadian Natural Gas Storage



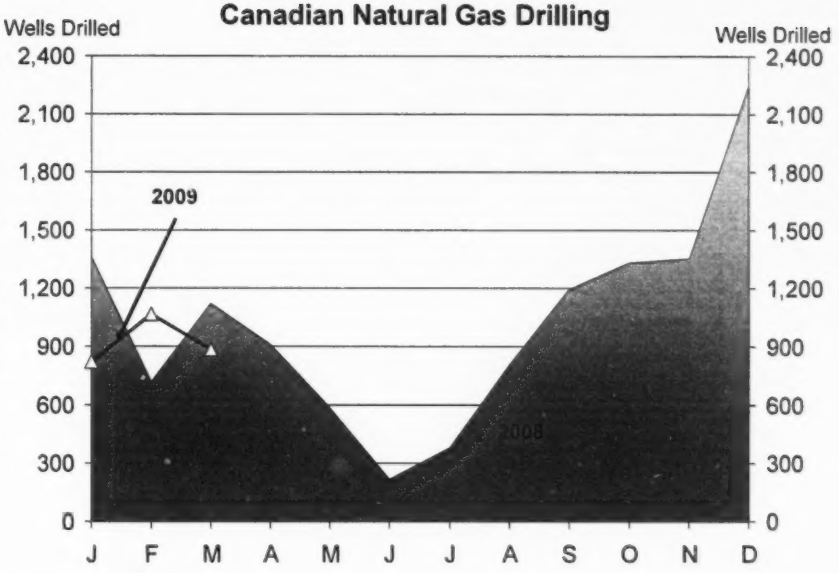
Source: Canadian Enerdata

Figure 7 indicates natural gas storage levels in Canada. The amount of gas in storage generally follows a seasonal pattern. In the summer, when natural gas demand is low, gas is injected into storage. Storage volumes peak in the fall. In winter, volumes are drawn down, reaching a low point in the spring.

Canadian natural gas storage inventories decreased 78 Bcf during the month of February 2009. Storage levels at the beginning of March 2009 were 234 Bcf, 6% higher than the year prior.

Figure 8

Canadian Natural Gas Drilling



Source: Daily Oil Bulletin

Figure 8 depicts the number of natural gas well completions in Canada. There is a time-lag between drilling a gas well and starting production, due to the work necessary to connect the new well to the pipeline grid. Drilling is therefore a good indicator of future natural gas supply.

There were 885 natural gas wells drilled in March 2009, a decrease of 21% from March 2008.

Bibliography and Data Sources

1. *Crude Oil and Natural Gas (Preliminary),* Statistics Canada
2. *Natural Gas Transportation and Distribution, 55-002*, Statistics Canada
3. *Supply and Disposition of Crude Oil and Natural Gas, 26-006*, Statistics Canada
4. *Drilling Highlights*, Daily Oil Bulletin website: www.dailyoilbulletin.com
5. Canadian Natural Gas Focus, GLJ Energy Publications Inc.
6. *Natural Gas Storage Survey*, Canadian Enerdata Ltd.
7. *Natural Gas Export Statistics*, National Energy Board website: www.neb-one.gc.ca
8. Canadian Gas Association, website: http://www.cga.ca/publications/documents/Chart10-HeatingDegreeDays.pdf